

Application No. 10/088,025

d.) **Remarks**

In the Office Action, restriction is deemed required, under 35 U.S.C. § 121, to one of the following groups of claims:

**Group I:** Claims 1-16, drawn to a first product of a transformed plant comprising an ATP/ADP translator gene, a first method of making said transformed plant, and a first method of using said transformed plant; and

**Group II:** Claim 17, drawn to a second method of using a transgenic plant comprising an ATP/ADP translocator.

**Applicant provisionally elects Group I, claims 1-16, with traverse.**

**Remarks Regarding Restriction**

As recited under M.P.E.P. 803, restriction is appropriate only when the groups can be shown to be distinct and there would be a "**serious burden**" placed on the Examiner to examine more than one group of claims. No such serious burden has been established and applicant respectfully requests that this restriction be withdrawn. Nevertheless, the subject matter of claim 17 has been deleted and, thus, this Restriction is moot.

**Remarks Regarding Amendments**

Claims 1-17 have been amended and new claim 18 added. The amendments and new claim are to more closely conform to U.S. practice. No new matter has been added with these amendments and the new claim, and claims 1-18 are currently pending. A clean copy of the pending claims is attached hereto.

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### Conclusion

The application is in condition for examination and the prompt issuance of an Office Action is respectfully requested. If there are any fees due with the filing of this Response, including any fees for an extension of time not herein accounted for, applicant respectfully requests that extension and also requests that any and **all fees due be charged to Deposit Account No. 03-1952, referencing Attorney Docket No. 53262-20080.00.**

Respectfully submitted,  
Morrison & Foerster LLP

Date: October 29, 2004

By



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Attached: Clean copy of claims

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Clean copy of Pending Claims for 10/088,025

Claim 1. A transformed plant or the progeny of said transformed plant, wherein a regulatory sequence or a gene copy number of an ATP/ADP translator gene of said transformed plant is modified in comparison with a corresponding untransformed plant, and said modification comprises exhibiting one or more amino acids simultaneously and in modified amounts.

Claim 2. The transformed plant or the progeny of said transformed plant of claim 1, which has an increased transport capacity for ATP into the chloroplastic membrane of said transformed plant.

Claim 3. The transformed plant or the progeny of said transformed plant of claim 1, which exhibits one or more essential amino acids in modified amounts.

Claim 4. The transformed plant or the progeny of said transformed plant of claim 1, which exhibits one or more essential amino acids in increased amounts over that of the untransformed plant.

Claim 5. The transformed plant or the progeny of said transformed plant of claim 1, which is a useful plant.

Claim 6. An ATP/ADP translocator gene of the transformed plant of claim 1, comprising an *Arabidopsis thaliana* nucleotide sequence (EMBL Accession No. Z49227) encoding the amino acid sequence of SEQ ID NO 1.

Claim 7. The ATP/ADP translocator gene of claim 6, further comprising a naturally found, chemically synthesized, modified, or artificially generated nucleotide sequence that encodes an ATP/ADP translocator gene.

Claim 8. The ATP/ADP translocator gene of claim 6, comprising one or more operably linked, regulatory nucleotide sequences.

- Claim 9. The ATP/ADP translocator gene of claim 6, comprising an upstream operably linked promoter.
- Claim 10. A gene structure comprising the ATP/ADP translocator gene of claim 6 and a regulatory sequence linked operably to said gene structure.
- Claim 11. A vector comprising the ATP/ADP translocator gene of claim 6.
- Claim 12. The vector of claim 11, further comprising one or more regulatory nucleotide sequences.
- Claim 13. A seed of the transformed plant or the progeny of said transformed plant of claim 1.
- Claim 14. A plant cell or tissue capable of propagation from the transformed plant of claim 1.
- Claim 15. A method of generating a plant with an increased amino acid content, comprising transforming said plant with the ATP/ADP translocator gene of claim 6.
- Claim 16. The transformed plant of claim 1, which is a useful plant or fodder plant.
- Claim 17. The ATP/ADP translocator gene of claim 6, further comprising a heterologous nucleotide sequence that encodes an ATP/ADP translocator gene or an allelic variation or isoform thereof.
- Claim 18. The vector of claim 12, wherein the one or more regulatory nucleotide sequences are selected from the group consisting of promoters, terminators, translation enhancers, nucleotide sequences for replication in a suitable host cell, nucleotide sequences for integration into a genome, and combinations thereof.